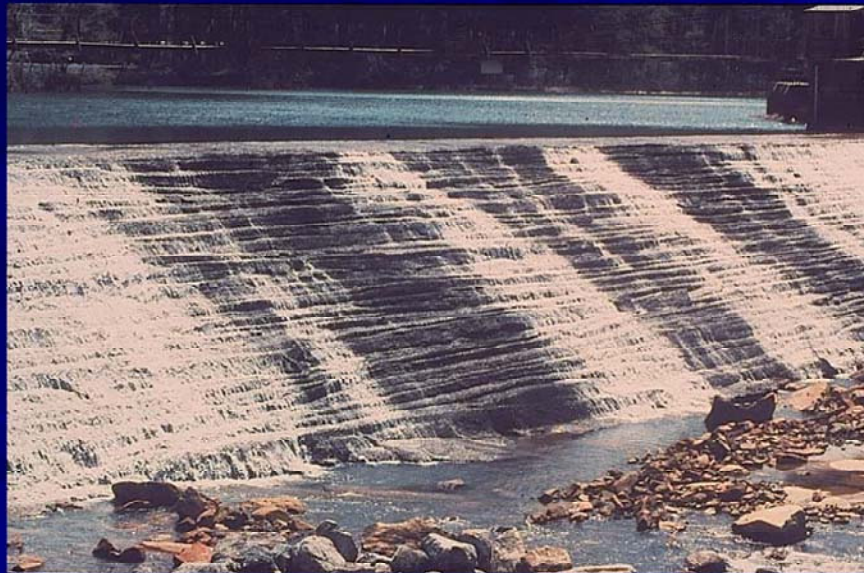


Ocoee #2 dam



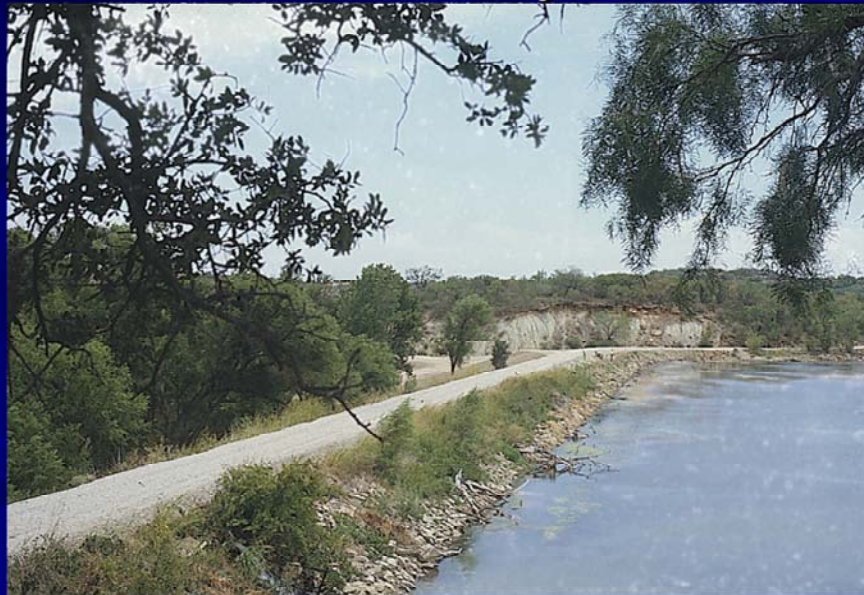
Ocoee #2 dam



Ocoee River 1996 Olympic Kayak Course



Brownwood Country Club Dam

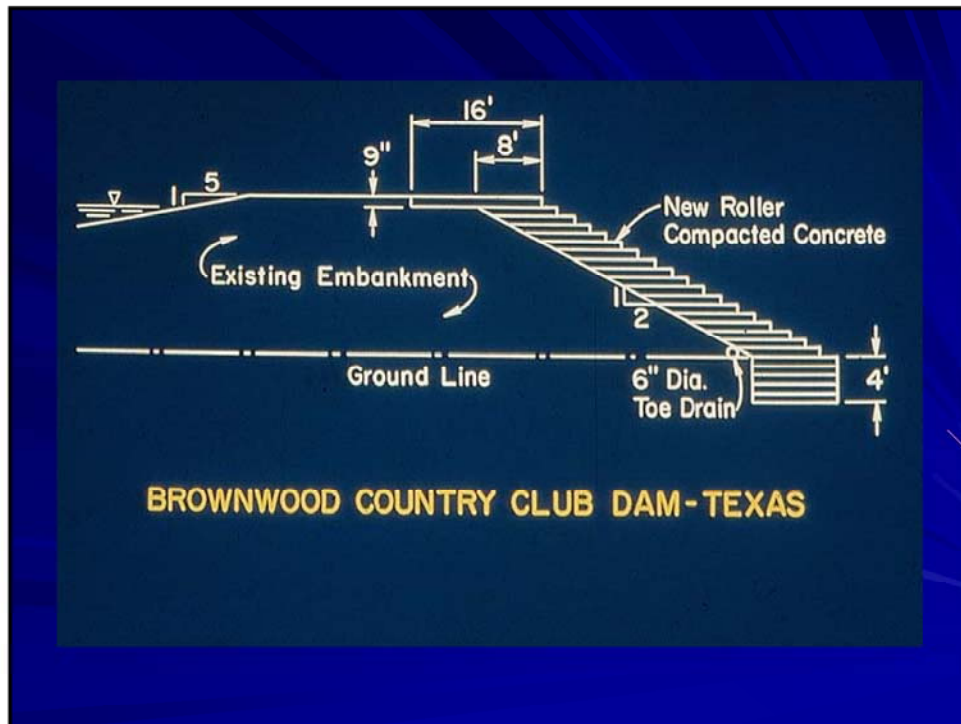


Brownwood Country Club Dam



TO REMEDY A HYDRAULIC DEFICIENCY

**Breach The Dam
Increase Storage
Increase Spillway Capacity
Overtopping Protection
Combination**



Brownwood Country Club Dam



Brownwood Country Club Dam



Brownwood Country Club Dam



Spring Creek Dam - CO



Spring Creek Dam - CO



DESIGN OBJECTIVES

Life: 50 – 100 – 1000 yrs
PMF Interval?
Event Duration
Peak Shifting
Delay Failure
Factor of Safety



Goose Pasture Dam - CO



Goose Pasture Dam - CO



Goose Pasture Dam - CO



Goose Pasture Dam - CO



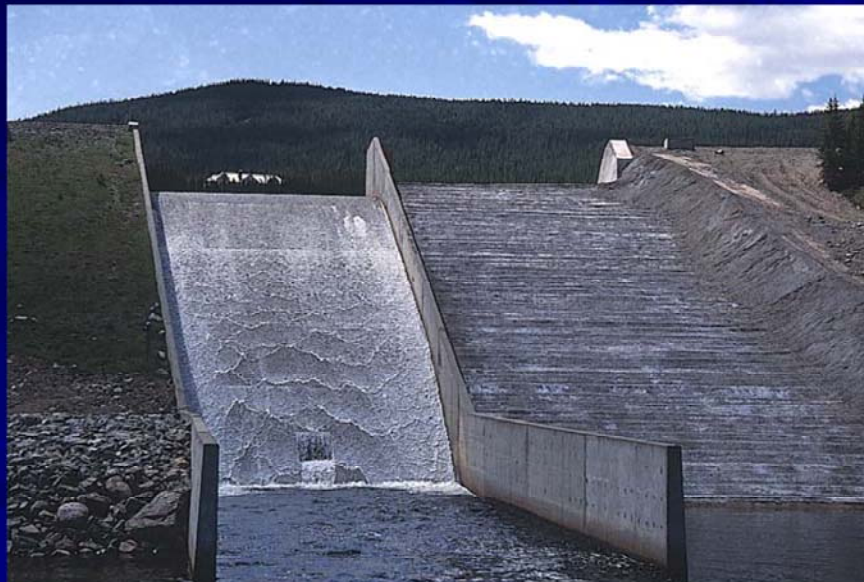
Goose Pasture Dam - CO

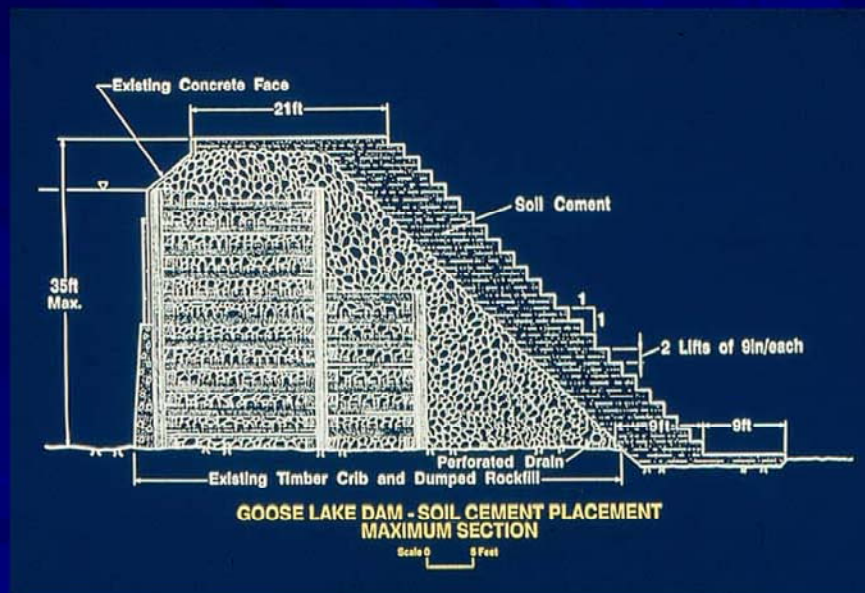


Goose Pasture Dam - CO



Goose Pasture Dam - CO





Goose Lake Dam - CO



Goose Lake Dam - CO



Goose Lake Dam - CO



Goose Lake Dam - CO



Standley Lake Mod. - CO



RECOMMENDED RCC DESIGN

Small Volume Projects

Strength:

Little F/T: 2100 psi @ 28 days
min. (i.e., approx. 250 lb/cu yd)
F/T Zone: 3000 psi @ 28 days m
(i.e., approx 325 lb/cu yd)

Leyden Dam Rehab. - CO



Leyden Dam Rehab. - CO



AGGREGATE

Good Quality
Local Availability
Minimum Processing
MSA about 1.5" (38mm)
40 % passing #4
4–8% passing #200
Cement vs Aggregate Cost

Douthat Dam Rehab - VA



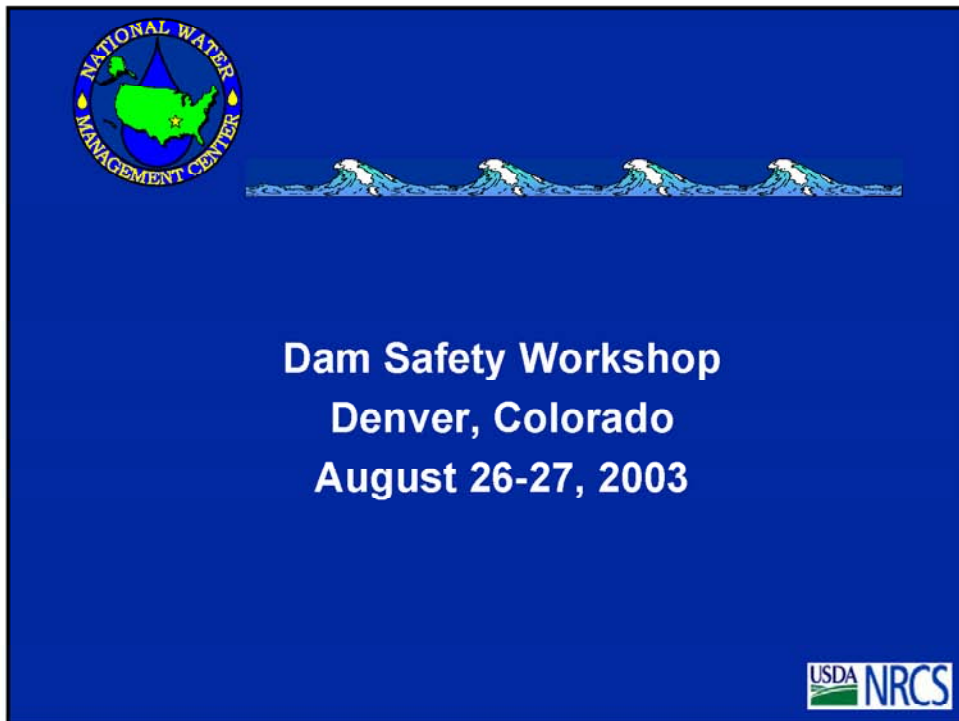
Douthat Dam Rehab - VA







Presentation 9:
General Discussion — NRCS
Designs and Research Needs





NWMC Functions

- Direct Technical Assistance
- Consultation and Training
- Watershed Plan Development and Review
- Linkage to Other Specialists



NRCS Hydrologic Criteria

Maximum Frequency of Use for Vegetated Auxiliary Spillway (Storage above the Principal Spillway)

Low Hazard – Class (a):	25 year Precipitation to 50 year Precipitation
Significant Hazard – Class (b):	50 year Precipitation
High Hazard – Class (c):	100 year Precipitation





NRCS Hydrologic Criteria



Auxiliary Spillway Design Hydrograph

Low Hazard – Class (a):	100 year Precipitation to $(P_{100} + 0.12 (PMP - P_{100}))$
Significant Hazard – Class (b):	$(P_{100} + 0.12 (PMP - P_{100}))$
High Hazard – Class (c):	$(P_{100} + 0.26 (PMP - P_{100}))$



NRCS Hydrologic Criteria



Freeboard Design Hydrograph

Low Hazard – Class (a):	$(P_{100} + 0.12 (PMP - P_{100}))$ to $(P_{100} + 0.40 (PMP - P_{100}))$
Significant Hazard – Class (b):	$(P_{100} + 0.40 (PMP - P_{100}))$
High Hazard – Class (c):	PMP

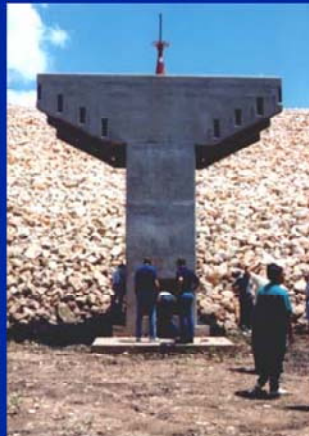




NRCS Principal Spillway



NRCS Principal Spillway





NRCS Principal Spillway



NRCS Vegetative Auxiliary Spillway

